of GSV), DVT or SVT presence and loose attachment of proximal GSV thrombus.

Results: Loosely attached GSV thrombi were followed with weekly duplex scans; dissolving and attachment of thrombus end was observed within 1-3 weeks. No cases of pulmonary embolism occurred in this series. Close Plus catheter was used from february 2005-april 2007 in 329 cases in 399 patients. Close Fast was used from May 2007-April 2009 in 362 cases in 304 patients. One-week duplexes were available in 95% of each group. A completely obliterated GSV was noted in 275 (88%) with Close Plus and 337 (98%) with Close Fast ($p < 0.0001$). A completely patent GSV was noted in 25 (8%) (Close Plus) and 4 (1.2%) cases with Close Fast ($p < 0.0001$). DVT was noted 11 (3.5%) cases with Close Plus and 0 (0%) with Close Fast ($p < 0.001$). SVT was noted in 47 (15%) cases with Close Plus and 35 (10%) cases with Close Fast ($p = 0.08$). Loosely attached proximal thrombus was noted in 20 (6%) cases with Close Plus and in 25 (7%) cases with Close Fast ($p = 0.8$).

Conclusions: These data suggest the superiority of ClosureFast relative to the rate of successful GSV obliteration as well as the incidence of postoperative acute DVT. SVT continues to occur with similar frequency with both types of catheters but appears to be a self-limiting benign condition. Loose thrombus attachment within the proximal GSV is not associated with embolic complications and resolves within 4 weeks after an RFA procedure.

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PS178.

Value and Limitations of Repeat VNUS Closure of the GSV

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Objectives: Endovenous ablation has revolutionized the treatment of symptomatic GSV reflux. However, a small percentage of patients will undergo recanalization of the GSV after this procedure and have recurrence of symptoms. We reviwed our database of VNUS closures of the GSV performed at out instituion from January 2005-march 2009 to examine the role of repeat VNUS closure for these patients.

Methods: VNUS closure was for symptomatic GSV reflux with reflux times > 500 milliseconds and diameter > 5mm of the entire GSV after an initial trial of compression. Of the 632 performed during this time period, 17 underwent repeat procedures for symptomatic recurrence due to recanalization of the GSV.

Results: Only four of these repeat GSV VNUS closure resulted in recanalization with severe recurrent venous reflux. 2 of these patients underwent stripping. Success of the second venous closure was not related to age or gender distribution, vein diameter, CEAP classification, h/o DVT of SVT, thrombotic complications after VNUS procedure, presence of absence of incompetent perforators, degree of deep venous insufficiency, time interval between procedures, time interval to recurrence of GSV insufficiency.

Conclusions: Based upon this limited dataset, we suggest that repeat VNUS closure can result in satisfactory results in many of these patients with symptomatic recanalization of the GSV.

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PS180.

The Role of Ultrasound to Identify Non-thrombotic Lower Extremity Pathology

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Objectives: Accreditation in peripheral venous testing can be obtained based upon femoropopliteal duplex ultrasound evaluation, and many laboratories limit their examination to this segment only. This simplified protocol detects acute femoropopliteal deep venous thrombosis (DVT) but misses calf vein DVT, superficial venous thrombosis, chronic DVT, venous reflux, and other non-venous findings potentially responsible of the pateints' presenting conditions. A protocol limited to the femoropopliteal segment results in additional unnecessary testing and can create patient dissatisfaction. We evaluated the differences in the diagnosis between a limited femoropopliteal vs a complete approach to the venous ultrasound evaluation of the lower extremities in patients examined in an outpatient vascular laboratory.

Methods: A data base with the complete ultrasound exams of the lower extremity including the common femoral, deep femoral, popliteal, tibial and peroneal veins, calf musclar veins, great and lesser saphenous veins performed in 167 consecutive patients from July 2009 was queried.

Results: Acute femoropopliteal DVT was found in 9% of the patients. Acute infrapopliteal DVT was found in 2%. Chronic femoropopliteal DVT was found in 7%. Acute infrapopliteal DVT was encountered in 2%. Acute superficial thrombophlebitis was encountered in 10% and chronic SVT in 4%. In addition, deep venous insufficiency (>500 milliseconds) was found in 44% and superficial venous insufficiency in 24 % (>500 milliseconds). A mass (cyst, hematoma, solid mass or aneurysm) was found in 9%.

Conclusions: Limited femoropopliteal ultrasound examination for acute DVT would have only detected 7.8 % of the positive findings. These data suggest that the duplex

exam can be used to further delineate the cause of outpatients' symptoms as compared to the limited protocol.

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C11: Poster Presentation II -Other

PS182.

Clinically Significance Incidental Computed Tomographic (CT) Finding in Patients Undergoing Endovascular Aortic Aneurysm Repair

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Objectives: Preoperative and follow-up CT scan is the standard of following patient after endovascular aortic aneurysm repair (EVAR). We examined the incidence of clinically significant incidental CT finding in this population of generally higher risk and more elderly patients.

Methods: Clinical records and computed tomographic angiograms (CTA) of patients who had undergone EVAR between January 2004 and December 2008 in our center were reviewed retrospectively. 180 consecutive patients with preoperative CTA and more than 12 months follow-up were included in this study. Official CT reports were reviewed. Findings were considered clinically significant if they warrant further treatment, workup or follow-up. Data was analyzed with student t test and $p < 0.05$ is considered to be significant.

Results: 13.89% (25/180) had significant clinical finding on preoperative and postoperative surveillance CT scan. 28% (7/25) had finding consistent with neoplasm requiring further treatment (renal carcinoma; n = 4, pancreatic neoplasm; n = 2; lung cancer; n = 1). Other common finding include lung mass >1cm and adrenal incidentaloma >1.5cm. Overall incidence of neoplasm was 4% (7/180). There were no differences with age, gender and maximum aneurysm size between two groups.

Conclusions: As computed tomography continues to impact all areas of surgical practice, it has become increasingly apparent that the significance of incidental findings be examined and documented. The results of this study demonstrate that the CT scans used to monitor and evaluate AAA before and after repair may yield additional benefits for the patient with early detection. Further studies should be done to examine whether these incidental findings lead to surgical intervention or management that impacted patient's overall morbidity or mortality.

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PS184.

Spectrum of Presentation of Thoracic Outlet Syndrome in Adolescents

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Objectives: Since more adolescent patients are being diagnosed clinically with thoracic outlet syndrome, we reviewed the outcomes of our adolescent patients who underwent first rib resection and scalenectomy (FRRS).

Methods: A retrospective review of a prospectively acquired data base

Results: Thirty-four (13 males/21 females), average age 16.5 (10-18) years, adolescent patients underwent FRRS between 12/04 −11/09. Eighteen patients (53%) presented with venous symptoms of which 17 had a subclavian vein thrombosis and 1 patient had intermittant compression. Three patients had hypercoaguable disorders and 3 had suffered a pulmonary embolism. Following FRRS, venograms performed in the 17 patients who had a previous thrombosis demonstrated a tight subclavian vein stenosis that was dilated in 11 patients; 3 patients had widely patent subclavian veins and 3 patients had occluded subclavian veins. The median follow-up in these patients was 11 months (1-54 months) and all but 1 of the subclavian veins are patent by duplex scan. Eleven patients presented with neurogenic symptoms at an average of 13 (2-36) months after their symptoms began. All failed physical therapy and 3 patients had a positive lidocaine scalene block. All but 1, who has persistant contralateral symptoms following FRRS, of the 11 patients did well at a median follow-up of 5.5 (1-36) months. Five patients presented with arterial symptoms of compression and ischemia and 1 patient had embolized to the radial artery. All 5 patients underwent FRRS (1 having a rudimentary first rib) and 2 of them had their cervical rib resected too and all did well.

Conclusions: This is the largest reported single series of adolescent patients with thoracic outlet syndrome who have undergone FRRS. These patients present more frequently with arterial and venous symptoms than adult patients however one third of this group of patients did have recalcitrant neurogenic symptoms. Rapid return to normal activity in adolescent patients was seen following surgical treatment.

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PS186.

The Cranial Radiation Exposure of Vascular Interventionalists

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Objectives: To quantify a representative Vascular Specialist's occupational exposure to cranial ionizing radiation.